

Sunfire™

SubRosa™

*SRS-210W-C Cabinet
SRS-210W-B Baffle
SRS-210W-G Grille*

Installation Instructions

Important Safety Instructions

1. Read Instructions
2. Keep these Instructions
3. Heed all Warnings.
4. Follow all Instructions
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. Unplug this apparatus during lightning storms or when unused for long periods of time.
9. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as a power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
10. Installation should only be performed by qualified and experienced professional installers. Refer to your Sunfire dealer.



The SubRosa subwoofer is a finely tuned system and should only be used with the Sunfire SRA-2700EQ companion amplifier. Using any other amplifier will offer inferior performance and may void your warranty.

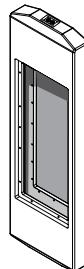


WARNING: THIS SUBWOOFER SYSTEM IS CAPABLE OF PRODUCING VERY HIGH SOUND PRESSURE LEVELS. YOU MUST TAKE EVERY PRECAUTION TO PROTECT YOUR HEARING FROM PERMANENT DAMAGE.



Contents

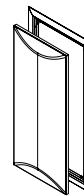
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Cabinet



Baffle Install



Grille Install

For more information on this and other Sunfire products, please visit our website:

www.sunfire.com

Introduction

Thank you for purchasing this Sunfire SubRosa™ Subwoofer. We hope you enjoy it and the music it makes as much as we have enjoyed creating it for you.

The breakthrough features of the subwoofer include:

- I-BEAM™ anti-shake mechanism to reduce wall vibration
- Dual ten-inch, High Back-emf woofers with neodymium magnets for low-profile
- 2700W Tracking Downconverter™ companion amplifier
- Fully automatic room equalization



The SubRosa subwoofer is a finely tuned system and should only be used with the Sunfire SRA-2700EQ companion amplifier. Using any other amplifier will offer inferior performance and may void your warranty.

About this installation guide

This guide contains instructions for installing the SubRosa in-wall cabinet into various locations, and installing the front baffle assembly, and the grille assembly.

For information regarding the operation of the system, please refer to the user's guide that comes with the companion SRA-2700EQ amplifier.

Tools and experience required



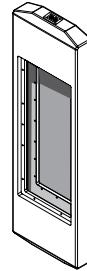
The cabinet should only be installed by qualified and experienced professional installers.

General construction tools are required for framing wood studs, gluing and screwing the cabinet in place, and applying sheetrock.

System components

The required components for a functioning SubRosa in-wall system are:

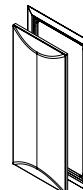
- **SRS-210W-C**
In-wall cabinet and hardware.



- **SRS-210W-B**
Front baffle containing two woofers, the I-BEAM™ anti-shake device, and a crossover network.



- **SRS-210W-G**
Grille assembly



- **SRA-2700EQ**
Amplifier and its room equalization measurement microphone



Installation overview

The cabinet may be mounted vertically between wall studs. The width is ideal for fitting between vertical 2x4 studs, spaced 16 inches apart. It may also be fitted horizontally.

A cardboard debris shield is supplied to fill the front aperture and prevent any dust, paint, or debris from entering during installation and sheetrock finishing.

Strips of foam material are supplied to fit between the cabinet and the studs and sheetrock.

The cabinet should be firmly and permanently joined to the studwork and sheetrock using woodscrews and glue.

The woofer baffle assembly is screwed to the front of the cabinet once the sheetrock is in place. A grille frame and grille are added to finish the installation. A paint shield is supplied so that you can easily paint the grille at the same time as the walls are painted.

Unpacking

Two people are required to gently lift out the cabinet and the baffle assembly from their shipping boxes. Remove all the packing material.

Your Sunfire subwoofer should reach you in perfect condition. If you do notice any shipping damage, please contact Sunfire immediately. Make sure that you keep your sales receipt. It is the only way to establish the duration of your Limited Warranty and it may come in useful for insurance purposes.

The serial number for the SubRosa subwoofer is printed on the front label of the woofer assembly.

Contents of each package

SRS-210W-C cabinet

- Cabinet assembly
Dimensions 44.50" x 14.25" x 3.5"
1,130.3 mm x 362 mm x 88.9 mm
Weight 23.30 lb (10.6 kg)
- Debris shield
- 12 foam strips 1" x 5"
- 8 foam strips 1" x 8"
- Plastic rivets for debris shield
- 12 wood screws

SRS-210W-B baffle assembly

- Baffle assembly
Dimensions 26.75" x 11.75" x 3.25"
679.5 mm x 298.5 mm x 82.6 mm
Weight 29 lb (13.2 kg)
- 14 Allen head screws and washers
(8-32 x 1.25")

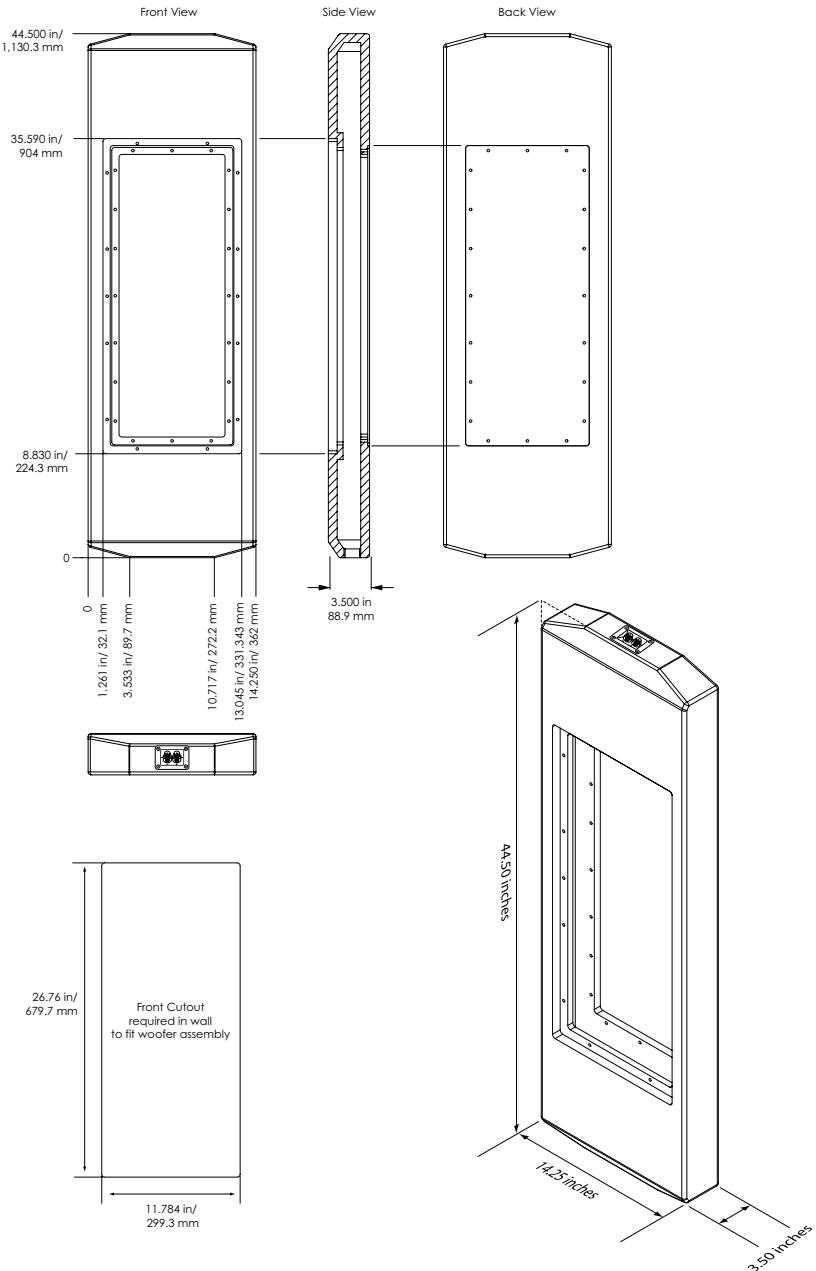
SRS-210W-G grill assembly

- Grille frame
Dimensions 28.80" x 13.8" x 0.7"
731.5 mm x 350.5 mm x 17.78 mm
(includes drywall spacer)
Weight 2.00 lb (0.9 kg)
- Grille
Dimensions 26.5" x 11.5" x 0.75"
673.1 mm x 292.1 mm 19.1 mm
Weight 0.6 lb (0.27 kg)
- Paint shield
- 12 Allen head screws

SRA-2700EQ amplifier

- SubRosa amplifier
Dimensions 1.75" (1U) x 17" x 15"
44.5 mm x 431.8 mm x 381 mm
Weight 18.4 lb. (8.35 kg)
- Room measurement microphone with stand and cord
- AC power cord
- 2 rack-mount brackets

Dimensions



Location

The suggestions below typically result in outstanding performance. However, although low frequencies are non-directional, factors such as room reflections, standing waves, resonance and absorption will strongly affect your subwoofer's performance.

Since your SubRosa subwoofer is designed to be professionally installed into your wall, engineering services from your Authorized Sunfire Dealer and/or outside acoustical resources should be considered to ensure optimum performance.

The SubRosa amplifier's Auto EQ feature will tailor the sound to the room for optimum performance in the location you choose.



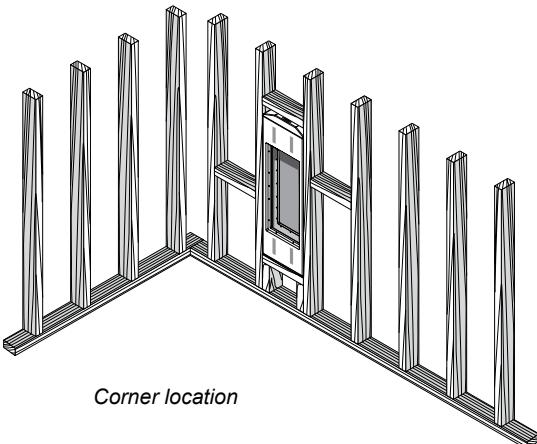
Keep the subwoofer at least two or three feet away from any TV screen, computer, VCR or magnetic tapes and discs. This will reduce the chance of the magnetic fields upsetting the TV screen or erasing your magnetic media.

Corner installation

Installing the subwoofer on the front wall, towards the corner will reinforce the low frequencies.

This is best suited for:

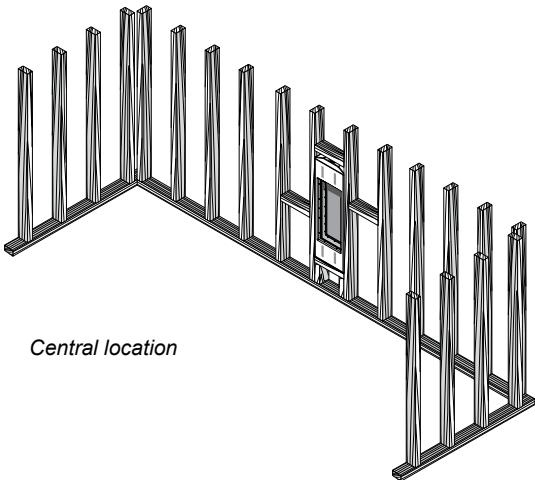
- Rooms larger than 200 square feet where a single subwoofer will be used,
- For dedicated home theaters
- For listeners who enjoy "heavy" bass.



Center location

Installing the subwoofer closer to the center of the front wall will still provide adequate bass, but will tend to be less "heavy" and somewhat tighter. This is ideally suited for:

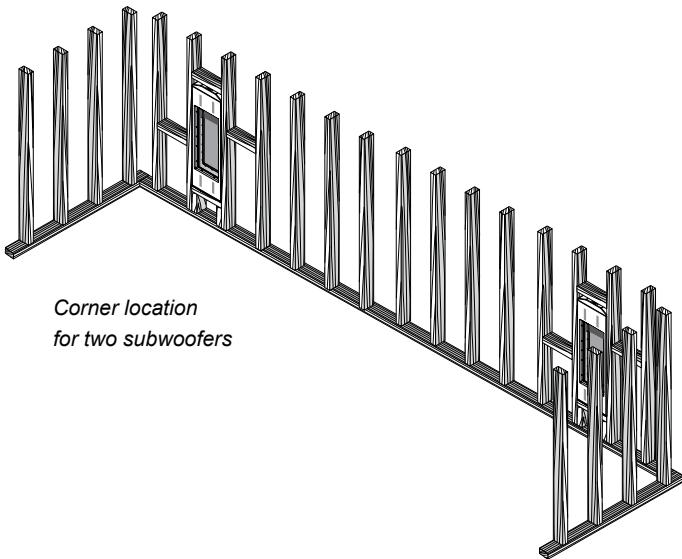
- For rooms smaller than 200 square feet
- Dedicated music listening rooms.



Central location

Using Two Subwoofers

If you wish to use two subwoofers, the sound output will double. Locating the subwoofers on the front wall, with one towards each corner will provide more flexibility in crossover points, without causing localization that can happen with subwoofers located on side and rear walls. Sunfire preamplifiers and receivers feature multiple subwoofer outputs for these applications. If your preamplifier has a single sub/LFE output, use a Y cable to split it into two outputs.



*Corner location
for two subwoofers*

Framing

Vertical mounting

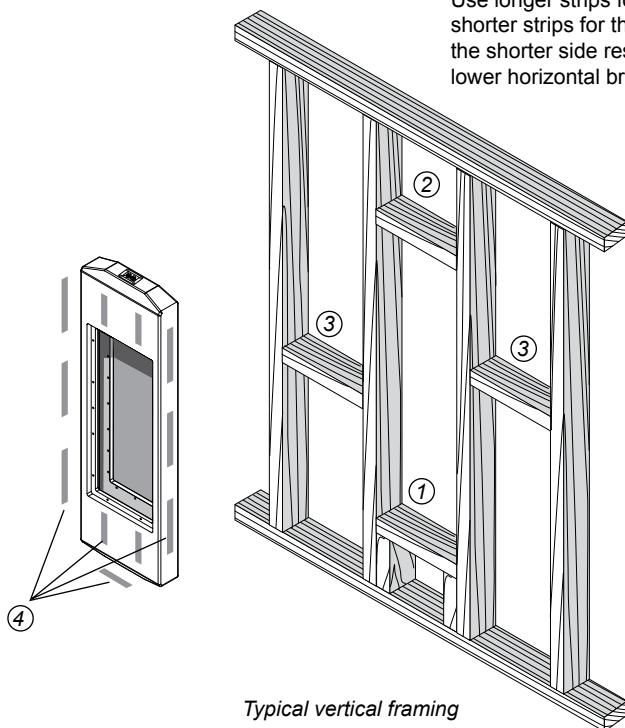
Due to residential construction methods, vertical mounting of the cabinet is recommended. The subwoofer cabinet will fit between 2 x 4 inch studs on 16 inch centers.

Horizontal mounting is also possible, but needs additional framing steps. See page 10 for horizontal mounting details.

Notes:

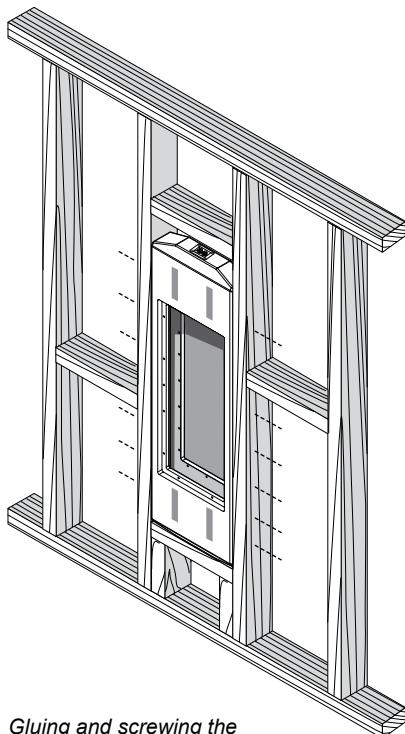
- Use the illustrations as a guide, but follow all local building codes regarding the actual framing methods.
- The insulation stuffed inside the cabinet is required for proper operation. Do not remove the insulation during the cabinet installation.

1. It is recommended that you add a horizontal brace below the cabinet to raise it above the height of the finished floor and baseboard molding. This will prevent accidental nail punctures in the cabinet.
2. Add a horizontal brace above the subwoofer cabinet, leaving enough room to make your speaker wire connections to the push-terminals.
3. Add further horizontal braces at either side of the cabinet, but make sure that they are at different heights to randomize wall resonances.
4. Attach self-adhesive foam strips to the cabinet wherever there will be contact with the studs or sheetrock. Use longer strips for the sides, and shorter strips for the front face and the shorter side resting against the lower horizontal brace.



Cabinet Installation

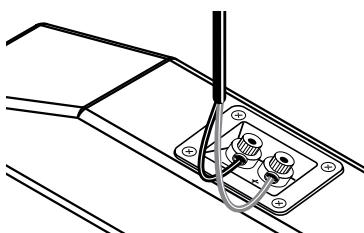
1. With the help of an assistant to lift the cabinet, check the fit of the cabinet into the framing. Use wood shims if there is any gap between the cabinet sides and the vertical studs.
2. If it makes it easier, you can connect the wiring to the cabinet before you secure it in place. See the next page for details.
3. When you are happy with the fit of the cabinet, apply wood glue, such as Liquid Nails™ along the cabinet sides. Fit the cabinet into the framing until its front face is flush with the front face of the framing.
4. Use a level to check that the cabinet is vertical.
5. Use six woodscrews (supplied) or more on each side to secure the cabinet in place. Do not screw into any of the joints of the cabinet. The cabinet walls are 3/4 inch thick, so make sure the screws do not pass all the way through. (The supplied screws will not pass through, if used with standard 2x4 studs.)



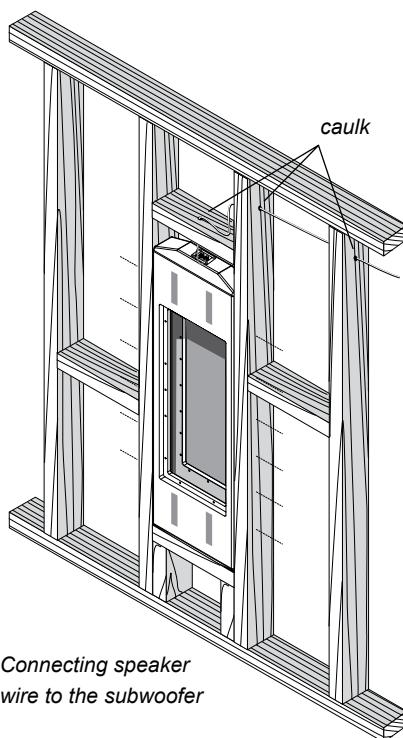
Gluing and screwing the cabinet in place

Wiring

1. Install the speaker wires following all local codes for electrical wiring installation. Use class 2 wiring, and 12 gauge is recommended, 16 gauge is the minimum.
2. Follow common low voltage practices like avoiding high voltage electrical wiring, or crossing them perpendicularly. This will reduce the chance of picking up hum or other interference.
3. Make the speaker wire connections to the subwoofer terminal cup, observing the correct polarity. The terminals are spring-loaded.
4. Secure the wire to the studs with electrical staples to prevent rattles and movement in operation.
5. Do an electrical continuity test to make sure the connections are good from the amplifier-end of the speaker wire to the ends of the two pre-installed wires coming out from the inside of the subwoofer. Temporarily remove the cardboard debris shield to reach the wires.
6. Use caulk to seal the nearest cable holes to the cabinet. This will prevent air movement and secure the cables in place. Due to the nature of subwoofers, it is a good idea to secure the wiring from vibration as much as possible. Do not have the weight of the cables hanging on the terminals.



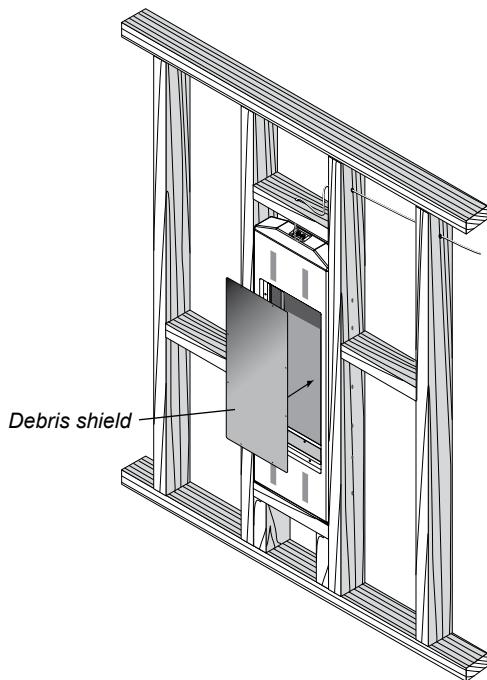
Close-up of the spring-loaded connections



Connecting speaker wire to the subwoofer

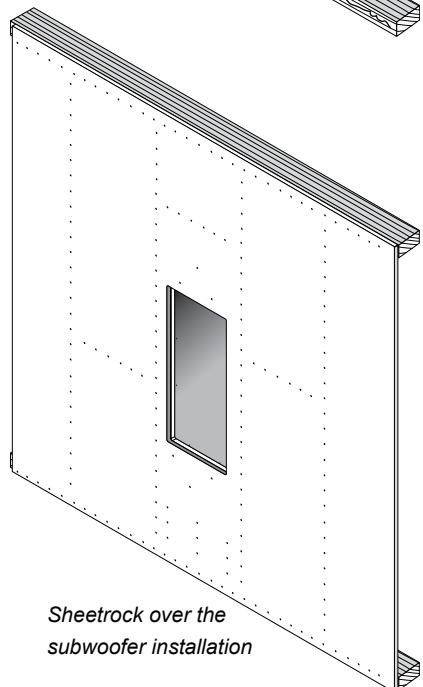
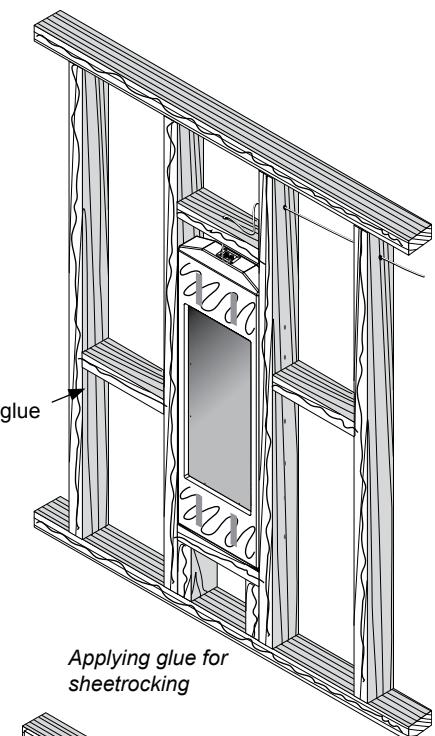
Final Rough-in

1. Make sure the debris shield is fitted into the cabinet opening using the plastic push rivets supplied. This will prevent dust and sheetrock debris from entering the cabinet.



Sheetrock installation

1. Apply glue to the framing surrounding the cabinet. Also apply glue to the front surface of the cabinet, wherever it will be in contact with the sheetrock.
3. Fit the sheetrock in place with sheetrock screws spaced 4 inches apart.
4. Carefully cut away the sheetrock to reveal the cabinet's aperture. Now that you can see the location better, add screws to secure the sheetrock to the front face of the subwoofer cabinet. Make sure that no screws pass close to the speaker wires or the terminal cup.
5. With the cardboard debris shield in place, the walls can be painted and finished as required.
6. Leave the cardboard debris shield in place until you are ready to install the woofer baffle assembly. It can be removed by cutting it and carefully pulling out the rivets holding it in place.
7. See page 16 for details regarding the installation of the woofer baffle assembly and grille frame assembly.



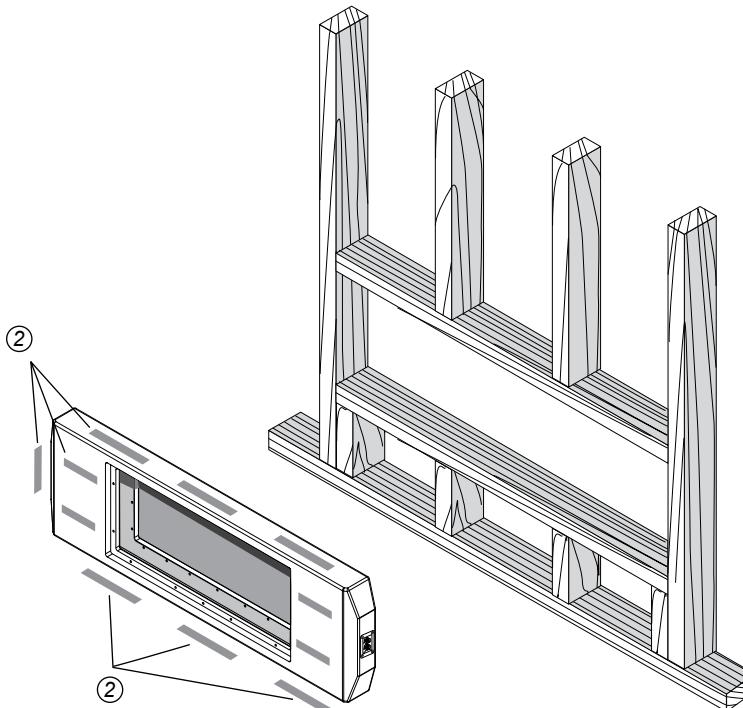
Horizontal mounting

In this position, the subwoofer's longest side is horizontal. This may be required for some installations, although it requires more framing work.

The procedure for mounting is basically the same as the vertical mounting.

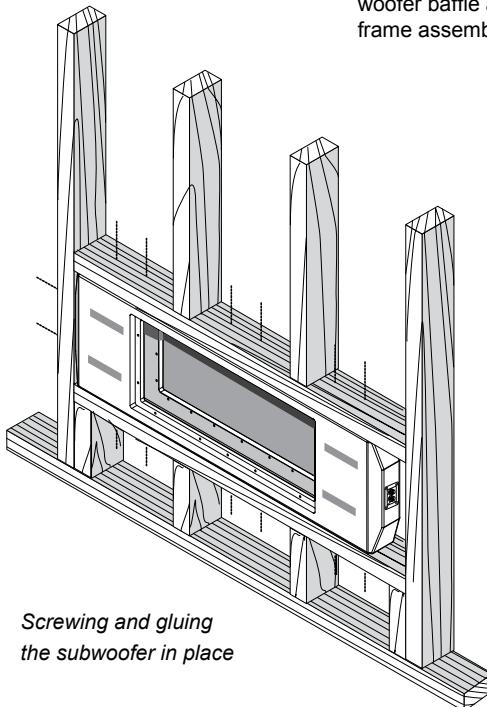
1. The cabinet should be mounted off the floor as shown, to prevent nails from puncturing the cabinet during baseboard installation.

2. Attach the self-adhesive foam strips (supplied) to the cabinet wherever there will be contact with the studs or sheetrock. Use longer strips for the sides, and shorter strips for the front face and the shorter vertical side.



Typical horizontal framing

3. With the help of an assistant to lift the cabinet, check the fit into the framing, and use shims if required.
4. Wiring the subwoofer is the same as described previously, except that there is not much room to make the connections to the binding posts.
5. Use wood glue, such as Liquid Nails™ along the cabinet top and side. Fit the cabinet into the framing until its front face is flush with the front face of the framing.
6. Use a level to make sure the cabinet is horizontal.
7. Use six woodscrews or more along the top, and a few into the side to secure the cabinet in place. If possible, add a few screws to secure the bottom face of the cabinet. You may have to angle them in, but do not screw in to any of the cabinet joints. The cabinet walls are 3/4 inch thick, so make sure the screws do not pass all the way through.
8. Do an electrical continuity test to make sure the connections are good from the amplifier-end of the speaker wire to the ends of the two pre-installed wires coming out from the inside of the subwoofer.
9. Finishing with sheetrock is the same as described for vertical mounting. Fit the debris shield before starting the sheetrock installation.
10. See the next page for details regarding the installation of the woofer baffle assembly and grille frame assembly.

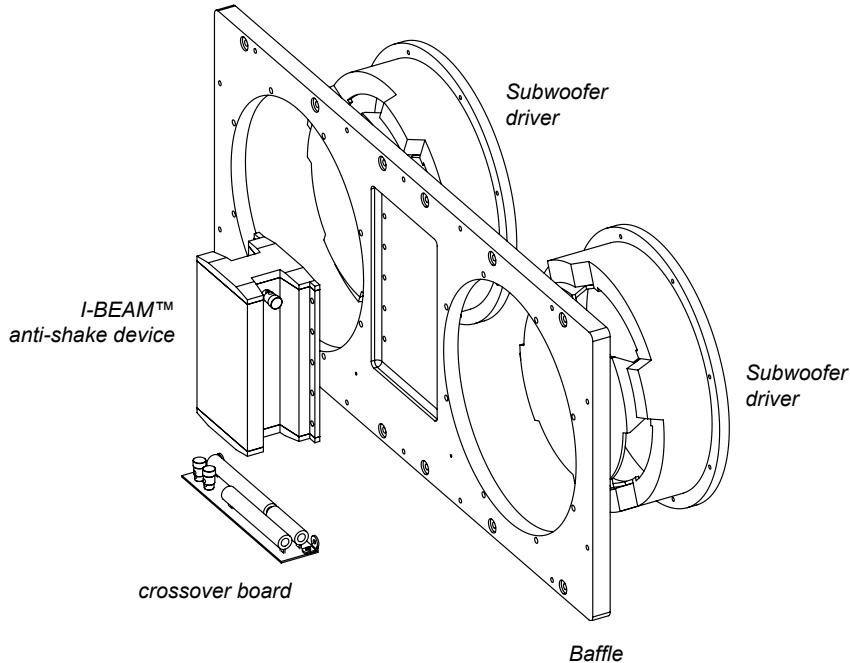


Woofer baffle installation

With the cabinet installed, and all the sheetrock, finishing and decorating done, the woofer baffle can be installed.

The woofer baffle assembly consists of the following components already installed:

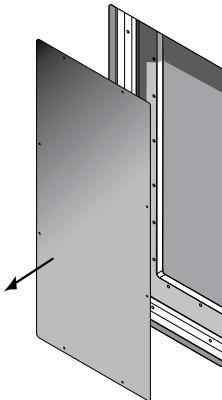
- The baffle, upon which all the components are assembled
- Two subwoofer drivers
- I-BEAM™ anti-shake device
- Crossover board



*Exploded view of the woofer baffle assembly
(it is supplied all assembled and wired)*

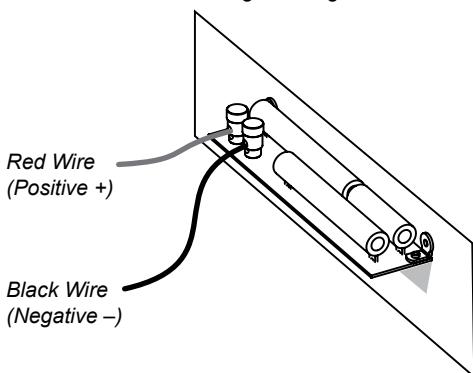
Baffle installation procedure

1. Remove the debris shield from the front of the in-wall cabinet. You can do this by cutting the cardboard with a sharp knife and pulling out the cardboard pieces and the plastic rivets holding it in place. Do not cut the two wires inside the cabinet, and do not remove any sound-proofing material.



Removing the debris shield

2. With the help of an assistant, hold the baffle assembly close to the in-wall cabinet.
3. Connect the two wires from the inside of the cabinet to the two push-terminals on the crossover board, following this diagram:



*Attaching the cabinet wires to the crossover board fixed to the woofer baffle assembly
(I-BEAM omitted for clarity)*

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Grille installation

With the woofer baffle installed, and the subwoofer tested, the grille can now be installed.

The grille assembly consists of the following components:

- The grille frame. This screws to the woofer baffle and holds the grille in place. It forms a nice frame around the subwoofer opening in the wall, hiding the sheetrock edges.
- The grille. This pushes into the grille frame, covering the woofer baffle assembly and the grille frame screws from view.
- A paint shield is supplied to cover the woofer baffle when painting. This allows you to paint the frame and grille at the same time the walls are painted.

Painting

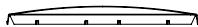
The frame and grille can be painted to match the decor before they are installed. They come already powder coated, and can accept a wide range of finishes.



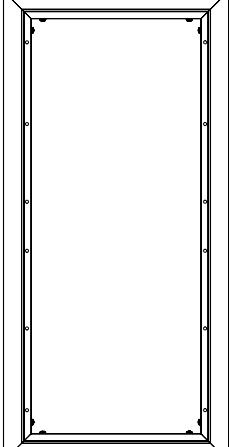
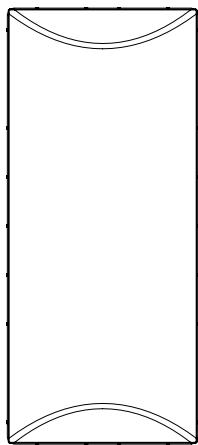
Clean them first, then take them to a well-ventilated area and paint with care to achieve a good finish.

If you prefer to paint the frame and grille when they are in place on the walls, the details are shown on the next page.

Top view



Grille



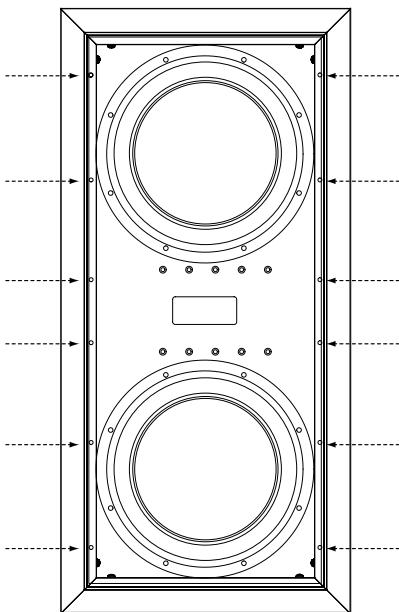
Grille frame



Paint shield

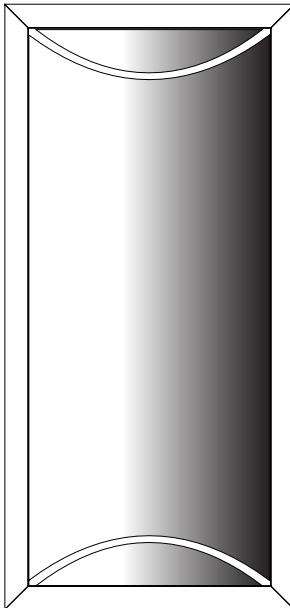
Installing the grille assembly

1. Secure the grille frame to the woofer baffle using 12 screws supplied in the grille package.



Location of the grille frame screws

6. Carefully press the grille into the frame, and make sure it is fully pressed home on all sides.



The grille installed into the frame

2. If you have already painted the frame and grille, please jump to step 6.
3. Fit the supplied cardboard paint shield into the frame to cover the woofers and baffle. Press the grille in place temporarily.
4. Paint the frame and grille to match the wall and decor.
5. When the paint is dry, carefully remove the grille and discard the paint shield. (It is important to remember this step!)



Conclusion

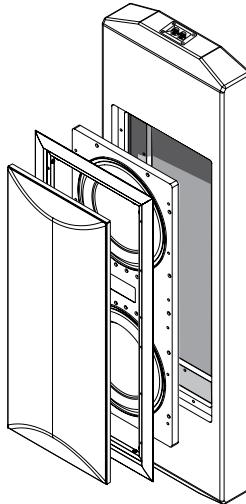
This completes the SubRosa in-wall subwoofer installation.

For details regarding the operation of the subwoofer and the automatic equalization procedure, please refer to the user's guide that comes with the Sunfire SubRosa amplifier.

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